



DUNNAIR
(Aust) Pty Ltd

R410a Refrigerant
SHSE10
Economy Cycle Split Ducted

Performance Data

INDOOR COIL ENTERING AIR TEMP °C		OUTDOOR COIL ENTERING AIR TEMPERATURE °C											
		30°C			35°C			40°C			45°C		
		Tot Cap KW	Sens Cap KW	LWB °C	Tot Cap KW	Sens Cap KW	LWB °C	Tot Cap KW	Sens Cap KW	LWB °C	Tot Cap KW	Sens Cap KW	LWB °C
DB °C	WB °C												
21	17	9.2	5.5	11.5	8.7	5.2	11.8	8.3	5.2	12.0	7.9	5.2	12.3
	18	9.5	5.0	11.9	9.0	4.8	12.9	8.6	4.6	13.2	8.1	4.5	13.5
	19	9.8	4.4	13.5	9.3	4.2	13.8	8.9	4.0	14.1	8.4	3.8	14.4
	20	10.1	3.8	14.6	9.7	3.6	14.9	9.2	3.4	15.2	8.8	3.6	15.5
23	17	9.2	6.6	11.5	8.7	6.4	11.8	8.3	6.2	12.0	7.9	6.0	12.3
	18	9.5	6.0	12.6	9.0	5.8	12.9	8.6	5.6	13.1	8.1	5.4	13.4
	19	9.8	5.4	13.5	9.3	5.3	13.8	8.9	5.1	14.1	8.4	4.9	14.4
	20	10.1	4.9	14.6	9.7	4.7	14.9	9.2	4.5	15.2	8.7	4.3	15.6
	21	10.5	4.3	15.8	10.0	4.1	16.1	9.5	4.0	16.4	9.1	3.8	16.6
25	17	9.2	7.6	11.4	8.8	7.4	11.7	8.4	7.2	12.0	7.9	7.0	12.2
	18	9.5	7.4	12.6	9.0	7.2	11.8	8.6	6.8	13.1	8.1	6.6	13.4
	19	9.8	7.1	13.5	9.1	7.1	12.8	8.9	6.2	14.1	8.4	6.0	14.4
	20	10.1	6.9	14.6	9.3	6.4	13.8	9.2	5.6	15.2	8.6	5.4	15.5
	21	10.5	6.6	15.8	9.7	5.9	16.0	9.5	5.0	16.3	9.1	4.9	16.6
27	17	9.3	8.5	11.2	8.8	8.5	11.7	8.5	8.0	11.8	8.1	7.7	12.1
	18	9.5	8.1	12.4	8.9	8.0	12.0	8.6	7.8	13.0	8.4	7.1	13.3
	19	9.8	7.6	13.5	9.1	7.9	12.8	8.9	7.2	14.1	8.7	6.5	14.4
	20	10.1	7.0	14.5	9.6	6.9	14.8	9.2	6.7	15.1	9.0	5.9	15.4
	21	10.5	6.4	15.7	10.0	6.3	16.0	9.5	6.1	16.3	9.4	5.3	16.6
29	17	9.5	9.2	11.1	9.1	8.9	11.3	8.8	8.6	11.6	8.4	8.2	11.9
	18	9.7	8.9	12.3	9.2	8.7	12.6	8.8	8.4	12.9	8.4	8.1	13.2
	19	9.8	8.6	13.4	9.4	8.5	13.7	8.9	8.3	13.9	8.7	7.6	14.2
	20	10.1	8.1	14.5	9.6	7.9	14.8	9.2	7.7	15.1	9.0	6.9	15.4
	21	10.5	7.5	15.6	10.0	7.4	15.9	9.5	7.1	16.2	9.4	5.7	16.4
31	17	9.8	9.8	11.1	9.4	9.4	11.3	9.1	9.1	11.7	8.7	8.7	12.0
	18	9.9	9.7	12.2	9.5	9.3	12.5	9.1	9.0	12.7	8.7	8.7	13.0
	19	10.0	9.4	13.4	9.6	9.2	13.7	9.1	8.9	14.0	8.7	8.7	14.0
	20	10.1	9.2	14.6	9.7	9.0	14.9	9.2	8.8	15.2	8.8	8.7	15.4
	21	10.4	8.5	15.6	10.0	8.4	15.9	9.5	8.2	16.1	9.1	8.0	16.4

Capacity multipliers should be applied to the above capacities to adjust for reduced or increased air flow.



Technical Specification SHSE10 Economy Cycle Split Ducted

Indoor Unit Model Number	SHSE10N	Nominal Evaporator Air Flow (l/s)	560
Outdoor Unit Model Number	SHSE10W	External Static Pressure	100
Total Cooling Capacity (kW)*	9.1	Number of Compressors	1
Sensible Cooling Capacity (kW)*	7.9	Power Requirements (Volt / Phase)	240 / 1
Heating Capacity (kW)**	9.4	Normal Max. Current (Amps / Phase)	20.1

*Entering air @ 27/19°C and ambient 35°C ** Entering air @ 21°C DB and 7°C ambient

Air Quantity Multiplying Factors

	% Rated Air Quantity-Nominal 560 l/s				
Capacity	80	90	100	110	120
Total	0.95	0.98	1.00	1.02	1.04
Sensible	0.89	0.95	1.00	1.05	1.09

Heating Performance Data

	Outdoor Coil Entering DB temp				
	0	4	8	12	18
Heating Capacity kW	7.6	7.9	10.0	10.8	12.8

Heating Performance Correction

% Rated Air Quality	Multiplier	Return Air Temp °C	Multiplier	Outdoor Air Temp °C	Approx. Defrost Factor
80	0.93	15	1.05	0	0.80
90	0.97	18	1.03	2	0.78
100	1.00	21	1.00	4	0.75
110	1.03	24	0.97	6	0.87
120	1.05	27	0.95	8	1.06

Compressor

Number Per Unit	1
Type	Scroll
RPM (Nom)	2900
Normal Max. Current (Amps / Phase)	13.5
Locked Rotor Current (Amps / Phase)	46.8
Displacement (m ³ /h)	10.9

Electrical Controls and Safeties

High Pressure Switch (Setting kPa)	2800	Defrost	
Low Pressure Switch (Setting kPa)	100	Initiation Temperature (°C)	-4
Indoor Fan Overload	Internal	Termination Temperature (°C)	10
Outdoor Fan Overload	Internal	Min. Period Between De-Ice (min)	33
Compressor Delay Timer	300 sec	Max. De-Ice Period (min)	4

Standard Features

Manual reset high pressure and auto reset low pressure cutouts	
Thermal overload protection on all motors	Suction line accumulator
Compressor crankcase heater	Automatic de-ice system
Limit start timer (anti short cycling)	Thermally insulated indoor unit

Indoor Coil

Type	Copper Tube / Aluminium Fins
Face Area (m)	0.30
Air Quantity (l/s)	560

Indoor Fan

Number of Fans	2
Type	Centrifugal
Drive	Direct
Motor Voltage / Phase / Frequency	240 / 1 / 50
Motor (kW) Standard	0.32
Max. Fan Speed (rpm)	1255

Electrical

Power Requirements	1 Phase / 220V / 50Hz
Normal Max. Current (Amps / Phase)	20.1

Outdoor Coil

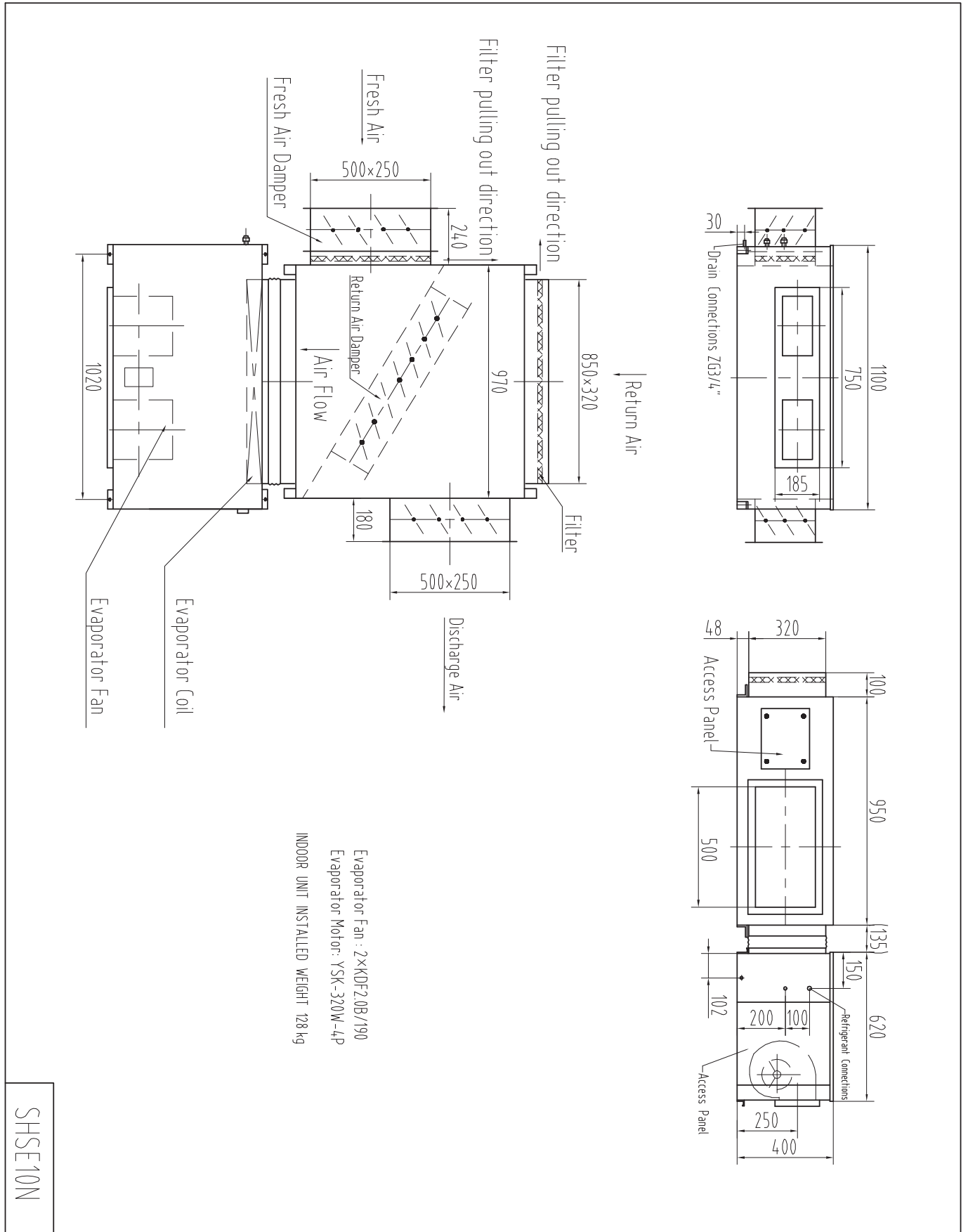
Type	Copper Tube / Aluminium Fins
Face Area	0.65

Outdoor Fan

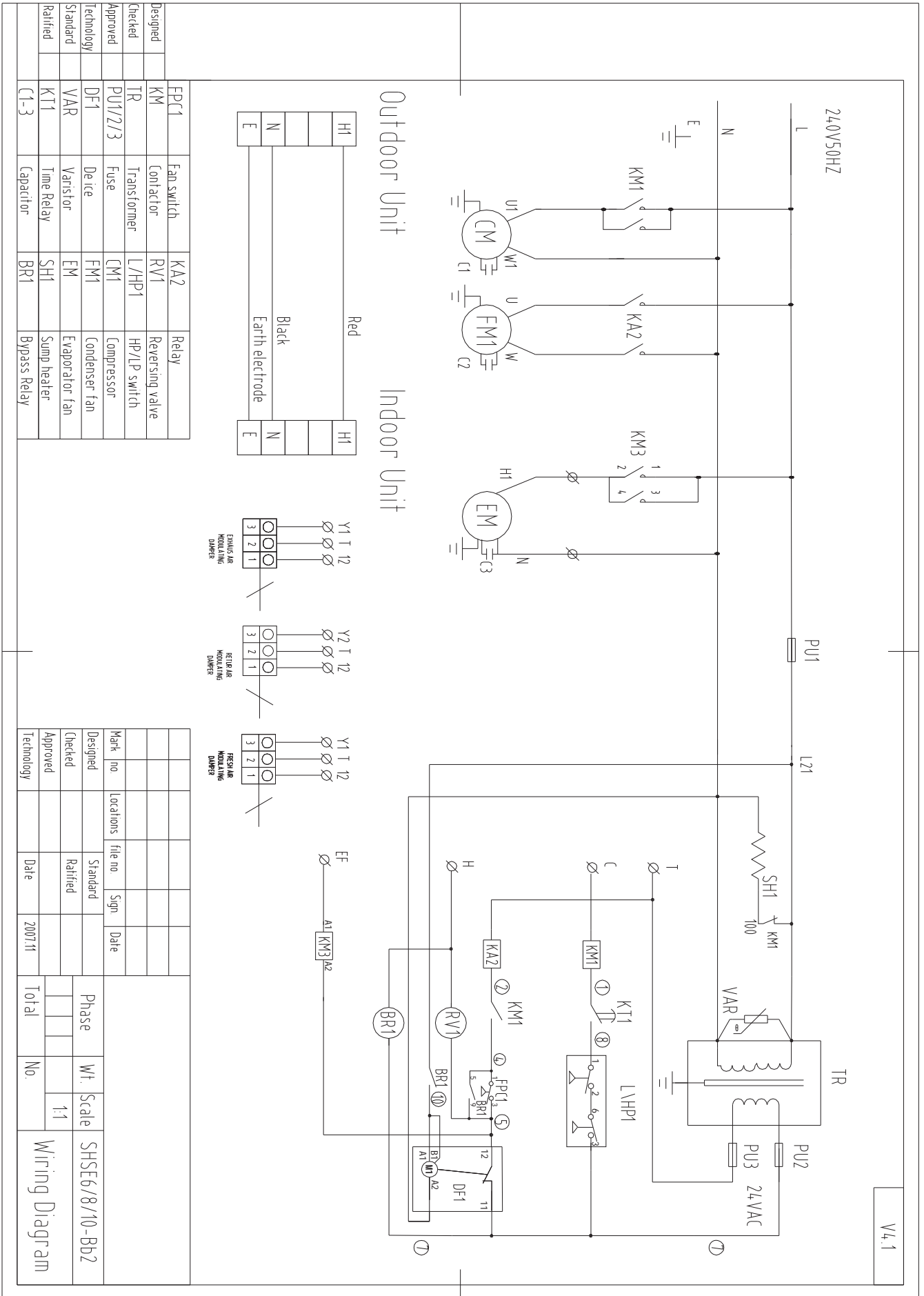
Number of Fans	1
Type	Axial
Drive	Direct
Motor Watts / rpm	60 / 920
Motor Voltage / Phase / Frequency	240 / 1 / 50

Refrigerant System

Refrigerant Type	R410a
Charge (kg)	3.6
Line Size (mm)	
Liquid 0–10 metres	10
Gas 0–10 metres	16
Liquid 10–20 metres	–
Gas 10–20 metres	–
Service Connections	Rotor Lock Valve
Expansion Control – in outdoor unit	Capillary

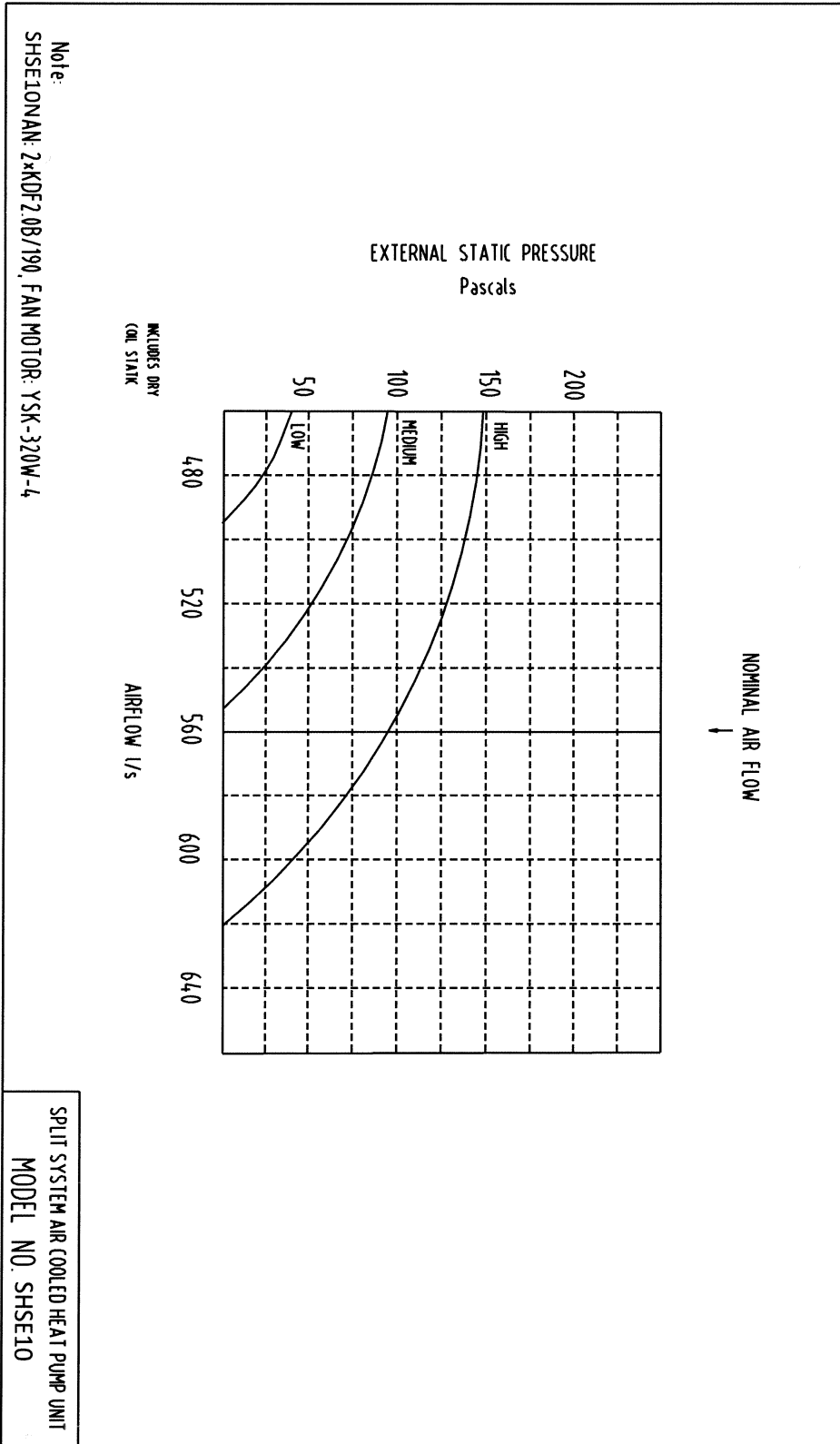


SHSE10N



Designed	FP1	Fan switch	KA2	Relay
Checked	KM	Contactor	RV1	Reversing valve
Approved	TR	Transformer	L/HP1	HP/LP switch
Technology	PU1/2/3	Fuse	CM1	Compressor
Standard	DF1	Defrost timer	FM1	Condenser fan
Ratified	VAR	Varistor	EM	Evaporator fan
	KT1	Time Relay	SH1	Sump heater
	C1-3	Capacitor	BR1	Bypass Relay

Mark no.	Locations	file no.	Sign	Date
Designed				
Checked				
Approved				
Technology				
Phase				Wt. Scale
Total				No. 1:1
Wiring Diagram				

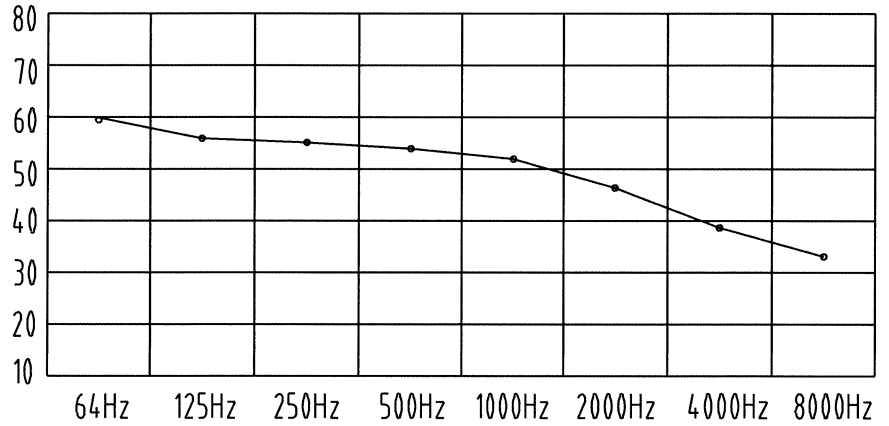


SHSE10W Noise rate analysing chart

A Class: 56.7dB

Hz	dB
64Hz	59.7
125Hz	56.0
250Hz	55.4
500Hz	52.5
1000Hz	50.4
2000Hz	47.0
4000Hz	39.2
8000Hz	34.3

Noise rate analysing chart (A Class: 56.7dB) dB



SHSE10N Noise rate analysing chart

A Class: 48.6dB

Hz	dB
64Hz	57.3
125Hz	51.1
250Hz	38.5
500Hz	38.4
1000Hz	38.0
2000Hz	35.4
4000Hz	27.3
8000Hz	17.8

Noise rate analysing chart (A Class: 48.6dB) dB

